



South Carolina Department of Health  
and Environmental Control

## Information Sheet Lake Conestee, Greenville SC October 2006

### Background

Lake Conestee was created in the early 1800's when a dam was constructed across the Reedy River just south of Greenville. As the City of Greenville developed into a regional textile and industrial center, the Reedy River became increasingly polluted with wastes from industry and urban runoff. Much of the pollution became trapped on sediments that collected in Lake Conestee, filling in most of the lake.

In 2000, the Conestee Foundation, a non-profit organization, bought the lake and its surrounding property. At the time, the Conestee Foundation entered into a Voluntary Cleanup Contract with DHEC. Under the contract, the Conestee Foundation agreed to perform environmental testing on the property in exchange for assurances from DHEC that the Foundation would not be held responsible for the contamination that existed before it bought the Property. The contract also required that the Conestee Foundation operate the property with certain restrictions to prevent unnecessary exposure to contamination.

The Conestee Foundation is developing the property into an environmental teaching center. Trails and boardwalks of the Lake Conestee Nature Park will open to the public starting on Saturday, October 28. Anyone using the trails will be safe from exposure to the contaminants. Other activities at the park will be phased in over time.

### Environmental Conclusions

Over 170 samples of soil, sediments, surface water, groundwater and fish tissue have been collected and tested for environmental contaminants since the Conestee Foundation acquired the property in 2000.

- The contaminants are similar to those found in runoff from any major urban area; however, they have been concentrated because the lake acted as sink for everything coming out of the Greenville area.

- Most of the contamination is bound up in the soil and sediment material. Testing has not found significant concentrations in either surface water samples or groundwater samples.
- The lake has filled in with sediment over the years. Much of the soil around the shoreline was deposited from upstream and may contain contaminants. Activities that result in prolonged exposure to the soil should be avoided.
- Because the Reedy River has become cleaner over the years, the deeper sediments deposited years ago generally have higher levels of contaminants. Digging and other activities that will expose the deeper sediments are prohibited.
- The contaminants do not easily break down in the environment. Much of the pollution flowing down the Reedy River has been stopped, but there will be measurable levels of contaminants for years to come.

### Types of Contaminants

The Lake Conestee property has been contaminated with a variety of natural and man-made chemical substances. The chemicals found around the site are known as “persistent compounds” because they do not break down easily in the environment. The following types of chemicals have been found:

- **Poly Aromatic Hydrocarbons (PAHs):** PAH's are complex mixtures of chemicals. Many PAHs are formed naturally from burning of any type of fuel (including wood, gas, oil, coal, etc). Other PAHs were made for their specific chemical properties and were common components of older textile dyes. High concentrations of PAHs are commonly found in asphalt, roofing tar, creosote, and coal tar.
- **Polychlorinated Biphenyls (PCBs):** PCBs were man-made oils primarily used in old electric equipment, transformers and gas pipelines. No PCBs have been made since 1979 or allowed for new use. Most of the old transformers containing PCBs have been replaced; however, PCB oils are still found at old industrial sites.
- **Pesticides:** Pesticides are commonly used to control animal and insect pests. A portion of the watershed draining to the Reedy River above Lake Conestee used to be agricultural areas. Older pesticides were formulated to last longer than today's formulas and many have been banned for years.
- **Metals:** Metals are naturally occurring substances used in old textile dyes, farm chemicals and numerous other uses. Metals also entered the watershed above Lake Conestee from metal plating operations, metal finishing, and many other industrial applications.

## **Exposure to Contaminants**

Computer models have been used to determine if the levels of contaminants could cause an unhealthy exposure to people using the property. Our scientists run these models using the highest concentrations of the chemicals that have been found anywhere on the site. They also use assumptions on how long people would engage in certain activities that could lead to exposure. These assumptions always overestimate the amount of exposure that a person would have to the contamination. By their very nature, these "Worst Case" analyses over-predict the risk of a site, but allow us to set boundaries for safe use.

Our "Worst Case" analysis of the contamination levels deposited around the Lake Conestee property shows that the property will be safe for activities that do not involve a lot of actual skin contact with the soil and sediments. Normal use of the trails and boardwalks around the Nature Park will be safe no matter how often you visit the park.

The Conestee Foundation has agreed to restrict use of the property so there will be no unacceptable exposure to the contaminants. Guidelines on the safe use of the park will be posted around the property.

The Foundation will maintain the dam across the Reedy River. This will keep the contaminants from traveling downstream. The dam will also help clean sediment build up over the contaminated sediments in the lake.

## **Fish Advisory**

Enough samples of Largemouth Bass and Red-Eared Sunfish ("Shell-Cracker") have been tested to allow DHEC to conclude that these fish species from Lake Conestee should not be eaten because of high levels of Mercury (a metal) and Chlordane (a pesticide). Details on the Fish Advisory are posted online at:

***<http://www.scdhec.net/water/fish/advisories/Conestee.htm>***

We have not had enough samples of other types of fish to conclude if they are safe. As a precaution, the Conestee Foundation has posted all waters of the lake as "Catch and Release Only".

## **For More Information:**

**SCDHEC Voluntary Cleanup Program TOLL-FREE TELEPHONE: (866)-576-3432**  
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